Amendments to the Claims:

1. (Cancelled)

2. (Currently Amended) A targeting molecule linked to at least one imaging agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character; wherein said targeting molecule is linked to at least one imaging agent by a substrate for an intracellular or extracellular enzyme in or on an epithelial cell or epithelial cell surface, and wherein the targeting molecule does not contain ~~at least one domain selected from the group consisting of the $C_H1\alpha$, $C_H2\alpha$, $C_H3\alpha$, and C_L domains~~ an I_gA heavy chain containing $C_H1\alpha$, $C_H2\alpha$, and $C_H3\alpha$ domains and an I_gA light chain containing a C_L domain.

3. (Original) A targeting molecule according to claim 2, wherein said enzyme is selected from the group consisting of proteases, glycosidases, phospholipases, esterases, hydrolases and nucleases.

4. (Currently Amended) A targeting molecule linked to at least one imaging agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character; wherein said targeting molecule is linked to at least one imaging agent through a side chain of amino acids in an antibody combining site, and wherein the targeting molecule does not contain ~~at least one domain selected from the group consisting of the $C_H1\alpha$, $C_H2\alpha$, $C_H3\alpha$, and C_L domains~~ an I_gA heavy chain containing $C_H1\alpha$, $C_H2\alpha$, and $C_H3\alpha$ domains and an I_gA light chain containing a C_L domain.

5. (Currently Amended) A targeting molecule linked to at least one imaging agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains

being separated by domains lacking beta-sheet character; wherein the targeting molecule does not contain ~~at least one domain selected from the group consisting of the $C_H1\alpha$, $C_H2\alpha$, $C_H3\alpha$, and C_L domains~~ an I_gA heavy chain containing $C_H1\alpha$, $C_H2\alpha$, and $C_H3\alpha$ domains and an I_gA light chain containing a C_L domain; wherein the imaging agent is not naturally linked with the targeting molecule, and wherein the imaging agent is not iodine.

6. (Original) A targeting molecule according to claim 5, wherein said imaging agent is selected from the group consisting of metals, radioactive isotopes, radioopaque agents, radiolucent agents, contrast agents, dyes and enzymes.

7. (Previously Presented) The targeting molecule of claim 2, wherein said targeting molecule comprises at least Domain 2 of a J chain.

8. (Currently Amended) A targeting molecule linked to at least one imaging agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character, wherein the targeting molecule does not contain ~~at least one domain selected from the group consisting of the $C_H1\alpha$, $C_H2\alpha$, $C_H3\alpha$, and C_L domains~~ an I_gA heavy chain containing $C_H1\alpha$, $C_H2\alpha$, and $C_H3\alpha$ domains and an I_gA light chain containing a C_L domain.

9. (Previously Presented) The targeting molecule of claim 8, wherein said targeting molecule comprises at least Domain 2 of a J chain.

10. (Previously Presented) The targeting molecule of claim 4, wherein said targeting molecule comprises at least Domain 2 of a J chain.

11. (Previously Presented) The targeting molecule of claim 5, wherein said targeting molecule comprises at least Domain 2 of a J chain.

12. (Currently Amended) A targeting molecule capable of specifically binding to a basolateral factor attached to a basolateral domain of an epithelial cell surface and causing the internalization of an imaging agent linked thereto, wherein said targeting molecule consists of Domain 2 of a J chain.